

REMARKS

Reconsideration and allowance are respectfully requested.

The amendments proposed in this Response address the issues on page 3 of the office action. Newly added claims 29-93 are similar in scope to claims 1-28, particularly and distinctly point out the subject matter of the invention, and have antecedence in the original specification and drawings. No new matter has been added. Entry and allowance are requested.

Applicant understands, and appreciates, that claim 28 is allowed because there are no rejections against claim 28 in the office action. Also, claim 5 was only rejected for depending from cancelled claim 4, and not rejected over any reference. Claim 5 has been amended above to depend from claim 1 and should now be allowable.

Applicant is unable to address the rejection on page 7 because the Examiner rejects claim 4 under 35 U.S.C. 103(a) over the Jones patent. However, claim 4 was cancelled in the last response. Clarification is respectfully requested. Applicant reserves the right to address this issue after receiving further clarification.

Claims 1-27 are patentable under 35 U.S.C. 112, first paragraph, because those claims now define a "diffusion layer." Withdrawal of the rejection is requested.

Claims 1-3, 6-20, and 23-27 are patentable under 35 U.S.C. 103(e) over Jones (US Patent 6,660,425).

The invention generally relates to a membrane battery vent,

comprising a battery case, at least one perforation in the battery case, a porous substrate adjacent the perforation in the battery case for venting batteries, and a gas selective permeable membrane integral with the porous substrate. The present invention further defines a catalytic layer and a diffusion layer on the selectively permeable membrane forming a gas recombination mechanism for recombining gases evolved from within the battery case and for venting the battery.

Jones relates to a battery cell having a housing, positive and negative electrodes spaced in the housing, electrolyte in the housing, a gas space in the housing for collecting hydrogen and oxygen gas, a pressure relief valve for venting gas from the housing and for preventing oxygen from entering the negative electrode, a container in the housing holding a catalyst being in gas communication with the oxygen and hydrogen in the gas space, and a catalyst poison filter in the chamber to be in contact with the oxygen and hydrogen in the gas space. Jones also has a microporous single piece plastic section hydrophobic to the electrolyte and having pores to allow oxygen and hydrogen gas to pass from the gas space into the catalyst chamber.

For an invention to be anticipated, it must be demonstrated that each and every element of the claimed invention is present in the "four corners" of a single prior art, either expressly described therein or under the principle of inherency. Lewmar Marine Inc. v Barient Inc., 3 USPQ2d 1766, 1767-1768 (CAFC, 1987). The absence from prior art reference any claimed element

negates anticipation. Kloster Speedsteel AB v. Crucible, Inc., 230 USPQ 81, 84 (Fed. Cir. 1986).

Nowhere in the entire Jones reference there is description, teaching, suggestion or even by remote inherence any indication of venting the battery housing through the selectively permeable membrane formed on the porous substrate adjacent to the opening (vent) in the housing. The Examiner picks different elements from Jones that have nothing to do with the claimed invention and then holds the different elements to anticipate the claimed invention even though the elements have nothing to do with the claimed invention and its components.

For example, the Examiner equates the Jones 68 to be the claimed perforation. However, Jones describes element 68 to be a gas space which is required for working in conjunction with the catalytic chamber as taught by Jones. The Examiner relies on column 4, lines 41-60 for the gas permeable membrane.

However, column 4, lines 41-60 exactly provides the differences between the claimed invention and the Jones device. For example, those lines describe figure 1 in which device 10 has a cylindrical container 14 attached to flange 16, with internal chamber 22 having an opening 20. Container 14 is of sulfuric acid resistant material because it is disposed inside the battery. Micro-porous section 30 allows gas and vapor to pass from the inside of the battery into chamber 22. Section 30 is disk shaped and has a member 30a heat sealed to the opening 20 of chamber 22. member 30a is porous, plastic, hydrophobic and

allows gas and vapor to pass through but not liquids. Member 30 completely seals catalyst 26 within chamber 22. Filter 28 is positioned between catalyst 26 and member 30a. Jones expressly teaches that member 30a forms an anti hydrogen flame barrier.

The Jones catalyst layer will be of use only if both oxygen and hydrogen pass through the member for the catalytic reaction to occur and for the two to combine and form water vapor. Thus, Jones cannot, does not, and will not allow only hydrogen to pass through the member into the catalytic chamber 22.

Also, the Examiner misconstrues the Jones catalytic chamber with its opening 20 to be the claimed battery vent. Jones expressly provides a one-way valve for venting the battery which has nothing to do with the catalytic chamber 22 opening 20. In fact, Jones admits in column 6, lines 14-16, that attaching the catalyst device 10 to the pressure release valve is not possible. And yet, the Examiner treats the valve and the catalytic chamber opening to be interchangeable, which is in error.

In Figure 8 the catalyst device 10 is attached to the pressure relief valve 12 which allows excess gas to escape rather than selectively permeable gas to vent. Catalyst 26 in the device 10 is in gas communication with the interior of the cell 60 being positioned in the gas space 68 in the housing where oxygen and hydrogen gas collect. Nowhere does Jones describe, teach, or suggest that the member 30a selectively permits gas egress to the pressure relief valve for venting the batteries. Thus, nothing in Jones, describes, teach or suggests the claimed

invention and therefore the reference cannot anticipate the present claims.

To be anticipating, a prior art reference must disclose "each and every limitation of the claimed invention[,]... must be enabling[,] and must describe...[the] claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." In re Paulsen, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

For most of the rejections the Examiner relies on inherency as a basis for Jones anticipating the claimed features. However, "To establish inherency, the extrinsic evidence 'must make it clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.'" In re Robertson, 48 USPQ2d 1949, 1951 (Fed. Cir. 1999) quoting from Continental Can Co. v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. Id. 20 USPQ2d at 1749.

Claims 21 and 22 are patentable under 35 U.S.C. 103(a) over Jones and Lewin (US Patent 5,916,704).

As pointed out above, Jones does not describe, teach nor suggest the claimed invention. Therefore, any further combination of Jones with other references will also teach away from the claimed invention.

"It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." In re Fritch, 23 USPQ2d 1783, 1784 (CAFC, August 1992), quoting from In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). "This court has previously stated that one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." Id. quoting from In re Fine, 5 USPQ2d 1600 (CAFC, 1988).

Lewin relates to a low pressure battery vent for flexible containers. The container has a venting aperture. An external seal is formed on the aperture with a vent structure. The vent structure has a chemically inert plastic film layer with a central aperture aligned with the vent aperture and adhered to the flexible container. A second film inert layer is adhered to the first layer such that it covers the vent and aperture but has a partial opening for a venting pathway from the aperture to the ambient atmosphere. The second film is releasably adhered to the first film for the venting.

Citing In re Gordon, 221 USPQ, 1127, the court pointed out, "the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification". In re Fritch, 23 USPQ2d 1783, 1784 (CAFC, August 1992). In the same case, In re Gordon, the court found a proposed modification inappropriate for an obviousness inquiry

when the modification rendered the prior art reference inoperable for its intended purpose.

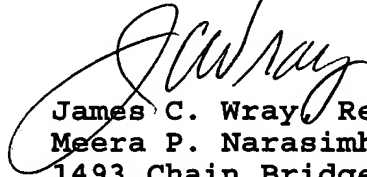
The teachings of Jones and Lewin cannot be combined in the manner proposed by the Examiner because the two teachings are inapposite. Jones mandates a catalyst chamber and a separate venting one-way valve where the chamber must be disposed inside the battery case in communication with the gas space. Lewin requires a venting apparatus that must be disposed outside the venting aperture for that device to work. It is not understood where in the combined teachings there is basis for the Examiner's holding that would render claims 21 and 22 obvious.

If examination at the initial stage does not produce a prima facie case of unpatentability, then without more the applicant is entitled to grant of the patent. In re Oetiker, 25 USPQ2d 1443, 1447 (Fed. Cir. 1992) citing In re Grabiak, 226 USPQ 870, 873 (Fed. Cir. 1985). In fact, the office action does not provide any basis for the rejection of each of the features in every dependent claim and therefore Applicant is unable to determine the Examiner's basis for the rejection of each of the claims to adequately rebut the rejections. Therefore, as dictated by Oetiker "without more applicant is entitled to grant of the patent."

Nothing in the references, either singly or in combination, teaches or suggests the claimed features. Therefore, the references cannot anticipate nor render obvious the present invention as claimed.

Since Applicant has presented a novel, unique and non-obvious invention, reconsideration and allowance are respectfully requested.

Respectfully,



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